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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,398	10/30/2003	James Ford Brett	OGC400/02811	7462
24118	7590	06/16/2006	EXAMINER	
HEAD, JOHNSON & KACHIGIAN 228 W 17TH PLACE TULSA, OK 74119			LUKS, JEREMY AUSTIN	
			ART UNIT	PAPER NUMBER

2837

DATE MAILED: 06/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/697,398	<b>Applicant(s)</b> BRETT ET AL.	
	<b>Examiner</b> Jeremy Luks	<b>Art Unit</b> 2837	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-6 and 8-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brett (6,059,031) in view of Cole (6,244,839) and further in view of Narkon (5,398,294).

With respect to Claims 1, 4, 5, 9, and 14-20, Brett teaches a whirling mass (Figure 3, #16) attached to a shaft (40); means to rotate said mass (16) in a selected rotational direction to cause said mass (16) to backwards whirl in an opposite rotational direction (Col. 3, Lines 46-50); and means to maintain angular radial position and angular alignment between the ends (44) of said whirling mass (16); and transmitting centrifugal force created by said whirling mass (16) to a downhole casing (Col. 3 Lines 45-55), and transmitting vibrational energy (Col. 4, Lines 32-33).

Brett fails to teach a pair of spaced, coaxially aligned gerotors spaced from each other, each gerotor with an inner gear rotated by a shaft having one less lobe than an outer gear; and a replaceable upper and lower track roller bearing attached to said shaft engaging and rolling on upper and lower replaceable sleeves, respectively.

Cole teaches a pair of spaced, coaxially aligned gerotors (Figure 3, #132, 140) spaced from each other, each gerotor (132, 140) with an inner gear rotated by a shaft

(121) having one less lobe than an outer gear (Figure 5, #143, 144); and a pair of replaceable upper (139) and lower (138) bearings attached to said shaft (121) on opposite ends, each engaging a pair of replaceable upper and lower sleeves (126). Cole inherently teaches wherein said inner gear backwards whirls at a speed defined by a factor:  $K = n/(N-n)$ , where  $n$  = number of lobes on inner rotor and  $N$  = number of lobes on outer rotor (Figure 5, #143, 144).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the rotating mass apparatus of Brett with the gerotor and bearing system of Cole in order to compensate for undesirable pressure effects in a gerotor system while maintaining a simplistic construction and fast-acting performance, and retaining the durability and dependability of the gerotor system. Cole fails to teach track roller bearings. Narkon teaches track roller bearings (Figure 4), which when used in combination with Cole and Brett, will roll on the upper and lower sleeves. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the rotating mass apparatus of Brett, as modified, with the track roller bearings of Narkon to provide a more efficient and durable bearing.

With respect to Claims 6 and 8, Brett teaches a means (Col. 3, Lines 39-43) to rotate a mass (Figure 3, #16) in a selected rotational direction including a drive shaft (40) with a plurality of U-joints (Figure 1, #24). Cole teaches an inner gear (Figure 3, #132) and bearing (138). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the rotating mass apparatus of Brett with the gerotor and bearing system of Cole in order to compensate for undesirable pressure

effects in a gerotor system while maintaining a simplistic construction and fast-acting performance, and retaining the durability and dependability of the gerotor system.

With respect to Claims 10-13, Brett teaches that the backwards-whirling mass (16) is an elongated cylinder with a diameter less than said housing (14) (Col. 3, Lines 30-33), and produces vibration energy that is used in enhanced fluid recovery, and used as a seismic source (Col 4, Lines 32-33).

2. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brett (6,059,031) in view of Cole (6,244,839) and Narkon (5,398,294), as applied to the Claims above, and further in view of Livingston (2,679,384).

Brett, Cole and Narkon are relied upon for the reasons and disclosures set forth above. Brett further teaches a fluid pump (Figure 3, #32, 34) powered by a shaft (40) (Col. 4, Lines 39-40). Brett fails to teach a self-contained drip lubrication system. Livingston teaches a self-contained drip lubrication system (Col. 3, Lines 22-26) pumping oil from an oil pot or sump (Figure 1, #64).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the rotating mass apparatus of Brett as modified, with the self-lubrication system Livingston to increase the resiliency and efficiency of the internal moving parts of the structure.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection. The Examiner considers the combination of Brett, Cole, Narkon and Livingston to be obvious to one of ordinary skill

in the art, and that the obvious combination teaches all of the limitations claimed by Applicant therein.

4. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

5. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

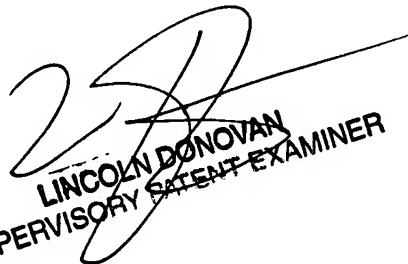
TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy Luks whose telephone number is (571) 272-2707. The examiner can normally be reached on Monday-Thursday 8:30-6:00, and alternating Fridays 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeremy Luks  
Patent Examiner  
Art Unit 2837



LINCOLN DONOVAN  
SUPERVISORY PATENT EXAMINER